

State of Louisiana
Department of Transportation and Development (DOTD)
Materials and Testing Section Approved Material Procedure
For

SPECIAL FINISH FOR CONCRETE

MATERIAL SPECIFICATION REFERENCE:

DOTD Standard Specifications, Subsection 1011.03

PRELIMINARY REQUIREMENTS:

Approved Materials Evaluation Form

Submit a standard "Approved Materials Evaluation Form" to the DOTD Materials and Testing Section Coordinator listed below, along with a letter requesting evaluation for the Approved Materials List.

Material Data Sheets

Include material data sheets to provide all pertinent information relative to the material to be evaluated, including, but not limited to, manufacturer's specifications, mixing instructions if required, recommended application procedure and rate, typical analysis and Materials Safety Data Sheet (MSDS).

Sample (to be furnished at no cost to the Department)

Include a one gallon sample of the material for evaluation completely labeled with manufacturer name, material name, batch number and date of manufacturer, along with a 3 by 5 inch panel coated with the material as proposed for use, for preliminary color and texture approval. The panel must conform to Department color and texture requirements, as outlined below, before any further evaluation is performed.

TEST REQUIREMENTS:

Laboratory Testing

All test to be performed in accordance with the following:

PROPERTY	TEST METHOD
Density	ASTM D 1475
Viscosity	ASTM D 562
Dry to Touch	ASTM D 1640
Dry Through	ASTM D 1640
Solids percent	ASTM D 2369
Volatile percent	ASTM D 2369
Color (Louisiana Gray) ¹	Visual Inspection
Texture	Visual Inspection
Infrared Spectrum ²	DOTD TR 610

¹The coating shall be tinted to match the standard "Louisiana Gray" or federal color # 36440 from Federal Standard 595C. Color chips of "Louisiana Gray" are available from the Materials and Testing Section.

²Standards for infrared spectrum shall be kept on file and compared to project samples for acceptance purposes.

Upon AML approval, tolerances for project acceptance will be established using these values plus or minus five percent.

Accelerated Weathering Test

(a) Four fiberboard panels approximately 1/8 by 3 by 6 in. will be coated with the material. The four coated panels shall be cured at room temperature for twenty-eight days. After curing, two panels shall be kept as control panels and two panels shall be tested in an ultraviolet light-water exposure apparatus (QUV) in accordance with ASTM G 154. Panels shall be unaffected except for slight chalking or discoloration after 1000 hours exposure.

(b) Three prisms measuring a maximum of 3 x 4 x 16 in. after being coated shall be prepared using a DOTD Class A mix design. These prisms shall be cured for twenty-one days in a 100 percent humidity room and then transferred to a 50 percent humidity room and allowed to cure for seven days before removal.

The three cured prisms will be placed on a flat, level working table and the special surface finish will be applied in accordance with the manufacturer's printed instructions to the top and four sides. After allowing them to dry for 24 hours the bottoms shall be coated in accordance with the manufacturer's printed instructions and allowed to dry for 24 hours.

The three coated prisms will then be placed in the 50 percent humidity room to cure for 28 days prior to testing.

Test specimens shall show no flaking, cracking, spalling or loss of bond when tested for an average of 50 cycles in accordance with ASTM C 666, "Method of Test for Resistance of Concrete to Rapid Freezing and Thawing".

Evaluation Time

Laboratory testing - 5 months

GENERAL:

Upon completion of the evaluation, the submitter will be notified in writing concerning the results of the evaluation and whether the material will or will not be added to the Approved Materials List. The Department reserves the right to reevaluate any material at any time.

PROJECT ACCEPTANCE REQUIREMENTS:

Inclusion of your product on the Approved Materials List is not blanket approval for its use.

All products, regardless of prior approval, shall be sampled in accordance with the Materials Sampling Manual

DISQUALIFICATION:

Any material may be removed from the Approved Materials List should any problem develop concerning formulation, color, application or performance. The Department must be notified in writing of any change in material formulation. Significant changes may require reevaluation of the material.

REQUALIFICATION:

A material which has been disqualified and removed from the Approved Materials List will be considered for reevaluation only after submission of a formal written request along with acceptable evidence that the problems causing the disqualification have been resolved.

Materials and Testing Section
Special Finish for Concrete
Page 4

DOTD MATERIALS AND TESTING SECTION COORDINATOR

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Approved 2-05-15

A handwritten signature in black ink, appearing to read 'Chris Abadie', with a stylized flourish extending to the right.

Chris Abadie, P.E.
DOTD MATERIALS ENGINEER ADMINISTRATOR